

A red twisted ankle

QUESTION: A 38-year-old Asian American woman twisted her right ankle by inverting it while walking. Believing that it was a minor sprain, she applied a Chinese medicine patch that was given to her by her mother, who recently emigrated from China. The patient applied the medicine that was impregnated in a patch to the anterior medial and lateral portions of her ankle, leaving the posterior portion uncovered. The following day the patient broke out in a red and painful rash with blisters.

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The patient denied fever or any systemic symptoms; when questioned, she did not know the ingredients in the medication. The rash was painful and the lesions made it painful to walk.

Figures 1 and 2 show the patient's ankle at the time of her first visit to the office. Both figures show the erythema has a well-demarcated border, which has been traced by the doctor's pen. The skin is also covered with many small vesicles (< 5 mm in diameter) and at least five large intact bullae (> 5 mm in diameter). What is your diagnosis and how would you manage this patient?



Figure 1



Figure 2

ANSWER: The patient has a severe contact dermatitis to the topical Chinese medicine. Because the ingredients of this medicine are unknown, it is difficult to pinpoint the exact allergen causing the contact dermatitis. Although this patient reports no previous occurrences of contact dermatitis, the recent history and physical examination represent a classic pattern for contact dermatitis. Therefore, no further testing is indicated.

DIFFERENTIAL DIAGNOSIS

The differential diagnosis includes irritant dermatitis and contact dermatitis due to other substances. This patient has an allergic contact dermatitis, a delayed hypersensitivity reaction that occurs after exposure to an antigenic substance. It is possible that this patient was exposed to this substance as a child in China.

Although irritant dermatitis may look like contact dermatitis, it is not caused by an immunologic mechanism.

The prototypical contact dermatitis is poison oak or poison ivy. These conditions can look similar and are often distinguished by the line of vesicles that can occur from brushing against one of the plants of the Anacardiaceae family. Also the linear pattern occurs from scratching oneself and dragging the oleoresin across the skin with the fingernails. In this case, the erythema and vesicles are widespread and show no linearity. Although irritant dermatitis

may look like contact dermatitis, it is not caused by an immunologic mechanism. The substance in irritant dermatitis is purely irritating to the skin and does not serve as an allergen. In patch testing, strong allergic reactions are vesicular, whereas irritant reactions show a deep erythema.

TREATMENT

Use of the Chinese medication was permanently discontinued. Cold compresses and a topical steroid were prescribed. Oral prednisone prescription was considered but not given on the first visit. The patient had no signs of secondary infection that would require antibiotic therapy. She was asked to follow-up 2 days later. When the patient showed no improvement despite use of a class 1, highest potency topical steroid, she was given a 2-week course of prednisone starting with 60 mg daily and tapering down to 5 mg daily. The patient responded rapidly and the condition fully resolved.

Cold wet compresses applied 15 to 30 minutes several times daily relieve symptoms during the acute blistering stage. Topical steroids are not effective in penetrating blisters but may be valuable for the surrounding areas. Aveeno baths may be used to soothe the area and control itching.

If use of systemic steroids is indicated (severe cases or those refractory to topical steroids), there is a choice of oral prednisone or a shot of triamcinolone acetonide (40 mg IM). Oral prednisone doses may vary widely, but a simple dose regimen is 20 mg twice daily for at least 6 days.¹

Reference

- 1 Habib T. Clinical dermatology: a color guide to diagnosis and therapy. 3rd ed. St. Louis: Mosby, 1996.

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